WHAT IS CLAIMED IS:

1. Apparatus for reproducing information from a storage medium comprising:

a motor unit operable to rotate said storage medium at any one of a plurality of rotational speeds; and

a data control unit operatively coupled to said motor unit and operable with said storage medium for accessing information contained on said storage medium;

said data control unit configured to receive size-indicating information relating to an amount of data to be reproduced,

said data control unit configured to receive a request for a read operation and, in response to said request, to control said motor unit to rotate said storage medium at one of said rotational speeds depending on said size-indicating information.

2. The apparatus of claim 1 wherein said data control unit is further configured to control said motor unit to operate at a first rotational speed if said size-indicating information indicates a data size that is less than a predetermined value and to operate at a second rotational speed if said size-indicating information indicates a data size that is greater than or equal to said predetermined value, said first rotational speed being less than said second rotational speed.

3. The apparatus of claim 2 wherein said second rotational speed is a maximum rotational speed.

4. The apparatus of claim 1 wherein said data control unit is further configured to control said motor unit to operate at a first rotational speed if said size-indicating information indicates a data size that is less than or equal to a first predetermined value and to operate at a second rotational speed if said size-indicating information indicates a data size that is greater than said first predetermined value and less than or equal to a second predetermined value, said first rotational speed being less than said second rotational speed, said second rotational speed being less than a maximum rotational speed.

5. The apparatus of claim 1 wherein said data control unit is further configured to detect a number of successive read operations wherein each read operation occurs within a predetermined period of time of a preceding read operation, and to operate

said motor unit at a rotational speed based on the number of said successive read operations detected.

6. The apparatus of claim 5 wherein said data control unit is further configured to operate said motor unit at a maximum rotational speed if a predetermined number of successive read operations is detected.

7. The apparatus of claim 1 wherein said data control unit is further configured for data transfer operations wherein each data transfer operation includes an amount of data equal to a maximum data size, and in response to a read request for an amount of data greater than said maximum data size, said data control unit being operable to transfer said amount of data in two or more data transfer operations, each data transfer operation of a data size less than or equal to said maximum data size.

8. The apparatus of claim 1 wherein said data control unit is further configured to:

access said storage medium to receive said size-indicating information;

to transmit said size-indicating information to a principal unit; and

to receive said size-indicating information from said principal unit in connection with said request for a read operation.

9. The apparatus of claim 8 wherein said data control unit is further configured for data transfer operations wherein each data transfer operation includes an amount of data equal to a maximum data size, wherein said data control unit is further configured to receive from said principal device a plurality of two or more requests for a read operation when information to be reproduced from said storage medium is greater than said maximum data size, each of said requests being for an amount of a data less than or equal to said maximum data size.

10. Apparatus for recording information onto a storage medium comprising:

a motor unit operable to rotate said storage medium at any one of a plurality of rotational speeds; and

a data control unit operatively coupled to said motor unit and operable with said storage medium for recording information onto said storage medium,

said data control unit configured to receive size-indicating information relating to an amount of data to be recorded onto said storage medium,

said data control unit configured to receive a request for a write operation and in response thereto to control said motor unit to rotate said storage medium at one of said rotational speeds depending on said size-indicating information.

11. Apparatus for reproducing information from a storage medium comprising:

a motor unit operable to rotate a storage medium at any one of a plurality of rotational speeds; and

a data control unit operatively coupled to said motor unit and operable with said storage medium for reproducing information from said storage medium,

said data control unit configured to detect a number of successive read operations wherein each read operation occurs within a predetermined period of time of a preceding read operation, and to rotate said storage medium at a rotational speed based on the number of said successive read operations.

12. The apparatus of claim 11 wherein said data control unit is further configured to control said motor unit at a maximum rotational speed if a predetermined number of successive read operations is detected.

13. The apparatus of claim 11 wherein said data control unit is further configured to access size-indicating information stored on said storage medium relating to an amount of data to be reproduced and to transmit said size-indicating information to a principal unit, said data control unit being further configured to receive said size-indicating information from said principal unit in connection with a request for a read operation and to rotate said storage medium at a rotational speed based on said size-indicating information.

14. The apparatus of claim 13 wherein said data control unit is further configured to control said motor unit to operate at a first rotational speed if said size-indicating information indicates a data size that is less than a predetermined value and to operate at a second rotational speed greater than said first rotational speed if said size-indicating information indicates a data size that is greater than or equal to said predetermined value.

15. The apparatus of claim 13 wherein said data control unit is further configured to control said motor unit to operate at a first rotational speed if said size-indicating information indicates a data size that is less than or equal to a first predetermined value and to operate at a second rotational speed if said size-indicating information indicates a data size that is greater than said first predetermined value and less than or equal to a second predetermined value, said first rotational speed being less than said second rotational speed, said second rotational speed being less than a maximum rotational speed.

16. The apparatus of claim 11 wherein said data control unit is configured for data transfer operations wherein each data transfer operation includes an amount of data equal to a maximum data size, and in response to a read operation for an amount of data greater than said maximum data size, said data control unit being operable to transfer said amount of data in two or more data transfer operations, each data transfer operation of a data size less than or equal to said maximum data size.

17. Apparatus for recording information onto a storage medium comprising:

a motor unit operable to rotate a storage medium at any one of a plurality of rotational speeds; and

a data control unit operatively coupled to said motor unit and operable with said storage medium for recording information onto said storage medium,

said data control unit configured to detect a number of successive write operations wherein each write operation occurs within a predetermined period of time of a preceding write operation, and to rotate said storage medium at a rotational speed based on the number of said successive write operations.

18. Apparatus for reproducing information from a storage medium comprising:

rotation means for rotating said storage medium at one of a number of predetermined rotation speeds;

read means for reading information from said storage medium; and

controller means operatively coupled to said read means and to said rotation means for performing read operations of data from said storage medium,

said controller means operable to obtain information indicative of a data size,

said controller means operable for receiving a request of a read operation, in response to said read operation, said rotation means rotating said storage medium at one of said predetermined rotation speeds based on said information.

19. Apparatus for recording information onto a storage medium comprising:

rotation means for rotating said storage medium at one of a number of predetermined rotation speeds;

write means for recording information from said storage medium; and

controller means operatively coupled to said write means and to said rotation means for performing write operations of data onto said storage medium,

said controller means operable to obtain information indicative of a data size,

said controller means operable for receiving a request of a write operation,

in response to said write operation, said rotation means rotating said storage medium at one of said predetermined rotation speeds based on said information.

20. A method for reproducing information from a rotatable storage medium comprising:

receiving a read operation request;

receiving size-indicating information relating to an amount of data to be reproduced from said rotatable storage medium;

rotating said rotatable storage medium at one of a number of predetermined rotation speeds based on said size-indicating information; and

reproducing said data from said rotatable storage medium.

21. The method of claim 20 further including rotating said rotatable storage medium at a first rotational speed if said size-indicating information indicates a data size that is less than a predetermined value and rotating said rotatable storage medium at a second rotational speed if said size-indicating information indicates a data size that is greater than or equal to said predetermined value, said first rotational speed being less than said second rotational speed.

22. The method of claim 20 further including rotating said rotatable storage medium at a first rotational speed if said size-indicating information indicates a data size that is less than or equal to a first predetermined value and further including rotating said

rotatable storage medium at a second rotational speed if said size-indicating information indicates a data size that is greater than said first predetermined value and less than or equal to a second predetermined value, said first rotational speed being less than said second rotational speed, said second rotational speed being less than a maximum rotational speed.

23. The method of claim 20 further including detecting a number of successive read operations, wherein each read operation occurs within a predetermined period of time of a preceding one of said read operations, and rotating said rotatable storage medium at a rotational speed based on the number of said successive read operations detected.

24. The method of claim 23 further including rotating said rotatable storage medium at a maximum rotational speed if a predetermined number of successive read operations is detected.

25. The method of claim 20 further including transferring reproduced data to a principle unit wherein a data transfer operation is performed with a maximum data size, the method further including, in response to receiving a read operation for an amount of data greater than said maximum data size, transferring reproduced data in two or more data transfer operations, each data transfer operation of a data size less than or equal to said maximum data size.

26. The method of claim 20 further including obtaining said size-indicating information from said rotatable storage medium and transferring it to a principal unit, receiving said read operation request from said principal unit, said read operation request including said size-indicating information.

27. The method of claim 26 further including transferring reproduced data to a principle unit wherein a data transfer operation is performed with a maximum data size, the method further including receiving a plurality of two or more read operation requests in order to transfer an amount of reproduced data exceeding said maximum data size, each of said read operations being of a data size less than or equal to said maximum data size.

28. A method for recording information onto a storage medium comprising:

receiving a write operation request, said write operation request including data to be written;

receiving size-indicating information indicative of the amount of data to be written; and

recording said data to be written including rotating said storage medium at one of a number of predetermined rotation speeds based on said size-indicating information.